

## REMEDIAL SITE ASSESSMENT DECISION - EPA REGION V

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EPA ID: ILN000510831 Site Name: SUPERIOR METALS RECLAIMING COMPANY

State ID:

Alias Site Names:

City: LANSING

Refer to Report Dated: 2/19/2013

County or Parish: COOK

State: IL

Report Developed By: STATE

Report Type: PRELIMINARY ASSESSMENT 001



1. Further Remedial Site Assessment Under CERCLA (Superfund) is not required because:



2. Further Assessment Needed Under CERCLA:

**Discussion/Rationale:**

The U.S. Environmental Protection Agency (EPA) has determined that no further remedial action by the Federal Superfund program is warranted at the referenced site, at this time. The basis for the no further remedial action planned (NFRAP) determination is provided in the attached document. A NFRAP designation means that no additional remedial steps under the Federal Superfund program will be taken at the site unless new information warranting further Superfund consideration or conditions not previously known to EPA regarding the site are disclosed. In accordance with EPA's decision regarding the tracking of NFRAP sites, the referenced site may be removed from the CERCLIS database and placed in a separate archival database as a historical record if no further Superfund interest is warranted. Archived sites may be returned to the CERCLIS site inventory if new information necessitating further Superfund consideration is discovered.

Site Decision Made by: DAVID BRAUNER, SITE ASSESSMENT MANAGER

Signature: David M. Brauner

Date: 2/19/13

Superior Metals Reclaiming Co.  
Lansing, Cook County, Illinois  
ILN 000 510 831  
Superfund/HRS

# CERCLA Quickscore



Prepared by:  
Office of Site Evaluation  
Division of Remediation Management  
Bureau of Land

\*\*\*\* CONFIDENTIAL \*\*\*\*  
 \*\*\*\*PRE-DECISIONAL DOCUMENT \*\*\*\*  
 \*\*\*\* SUMMARY SCORESHEET \*\*\*\*  
 \*\*\*\* FOR COMPUTING PROJECTED HRS SCORE \*\*\*\*

\*\*\*\* Do Not Cite or Quote \*\*\*\*

Site Name: Superior Metals Reclaiming Company      Region: Region 5  
 Scenario Name: Preliminary Assessment  
 City, County, State: Lansing, Illinois      Evaluator: Jerry Willman  
 EPA ID#: ILN000510831      Date: 12/12/2012  
 Lat/Long: 41:34:28,-87:32:39  
 Congressional District:  
 This Scoresheet is for: PA  
 Scenario Name: Preliminary Assessment  
 Description:

	S pathway	S <sup>2</sup> pathway
Ground Water Migration Pathway Score (S <sub>gw</sub> )	1.05	1.1
Surface Water Migration Pathway Score (S <sub>sw</sub> )	0.0	0.0
Soil Exposure Pathway Score (S <sub>s</sub> )	11.42	130.42
Air Migration Score (S <sub>a</sub> )	0.0	0.0
$S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$		131.52
$(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$		32.88
$/(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$		5.73

Pathways not assigned a score (explain): Surface water did not score due to runoff being directed towards the village's storm water control system.

**TABLE 3-1 --GROUND WATER MIGRATION PATHWAY SCORESHEET**

Factor categories and factors	Maximum Value	Value Assigned
Aquifer Evaluated: Ground Water		
<b>Likelihood of Release to an Aquifer:</b>		
1. Observed Release	550	0.0
2. Potential to Release:		
2a. Containment	10	10.0
2b. Net Precipitation	10	3.0
2c. Depth to Aquifer	5	5.0
2d. Travel Time	35	35.0
2e. Potential to Release [(lines 2a(2b + 2c + 2d)]	500	430.0
3. Likelihood of Release (higher of lines 1 and 2e)	550	430.0
<b>Waste Characteristics:</b>		
4. Toxicity/Mobility	(a)	100.0
5. Hazardous Waste Quantity	(a)	10.0
6. Waste Characteristics	100	6.0
<b>Targets:</b>		
7. Nearest Well	(b)	18.0
8. Population:		
8a. Level I Concentrations	(b)	0.0
8b. Level II Concentrations	(b)	0.0
8c. Potential Contamination	(b)	10.4
8d. Population (lines 8a + 8b + 8c)	(b)	10.4
9. Resources	5	0.0
10. Wellhead Protection Area	20	5.0
11. Targets (lines 7 + 8d + 9 + 10)	(b)	33.4
<b>Ground Water Migration Score for an Aquifer:</b>		
12. Aquifer Score [(lines 3 x 6 x 11)/82,500] <sup>c</sup>	100	1.05
<b>Ground Water Migration Pathway Score:</b>		
13. Pathway Score ( $S_{gw}$ ), (highest value from line 12 for all aquifers evaluated) <sup>c</sup>	100	0.0

<sup>a</sup> Maximum value applies to waste characteristics category

<sup>b</sup> Maximum value not applicable

<sup>c</sup> Do not round to nearest integer

**TABLE 4-1 --SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET**

Factor categories and factors	Maximum Value	Value Assigned
Watershed Evaluated: Surface Water		
<b>Drinking Water Threat</b>		
<b>Likelihood of Release:</b>		
1. Observed Release	550	0.0
2. Potential to Release by Overland Flow:		
2a. Containment	10	3.0
2b. Runoff	10	1.0
2c. Distance to Surface Water	5	16.0
2d. Potential to Release by Overland Flow [(lines 2a(2b + 2c)]	35	51.0
3. Potential to Release by Flood:		
3a. Containment (Flood)	10	3.0
3b. Flood Frequency	50	0.0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0.0
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	51.0
5. Likelihood of Release (higher of lines 1 and 4)	550	51.0
<b>Waste Characteristics:</b>		
6. Toxicity/Persistence	(a)	10000.0
7. Hazardous Waste Quantity	(a)	10.0
8. Waste Characteristics	100	18.0
<b>Targets:</b>		
9. Nearest Intake	50	0.0
10. Population:		
10a. Level I Concentrations	(b)	0.0
10b. Level II Concentrations	(b)	0.0
10c. Potential Contamination	(b)	0.0
10d. Population (lines 10a + 10b + 10c)	(b)	0.0
11. Resources	5	0.0
12. Targets (lines 9 + 10d + 11)	(b)	0.0
<b>Drinking Water Threat Score:</b>		
13. Drinking Water Threat Score [(lines 5x8x12)/82,500, subject to a max of 100]	100	0.0
<b>Human Food Chain Threat</b>		
<b>Likelihood of Release:</b>		
14. Likelihood of Release (same value as line 5)	550	51.0
<b>Waste Characteristics:</b>		
15. Toxicity/Persistence/Bioaccumulation	(a)	50000.0
16. Hazardous Waste Quantity	(a)	10.0
17. Waste Characteristics	1000	18.0
<b>Targets:</b>		
18. Food Chain Individual	50	0.0
19. Population		
19a. Level I Concentration	(b)	0.0
19b. Level II Concentration	(b)	0.0
19c. Potential Human Food Chain Contamination	(b)	0.0
19d. Population (lines 19a + 19b + 19c)	(b)	0.0
20. Targets (lines 18 + 19d)	(b)	0.0
<b>Human Food Chain Threat Score:</b>		
21. Human Food Chain Threat Score [(lines 14x17x20)/82500, subject to max of 100]	100	0.0
<b>Environmental Threat</b>		
<b>Likelihood of Release:</b>		
22. Likelihood of Release (same value as line 5)	550	51.0
<b>Waste Characteristics:</b>		
23. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	5.0E7
24. Hazardous Waste Quantity	(a)	10.0
25. Waste Characteristics	1000	100.0

**Targets:**

26. Sensitive Environments		
26a. Level I Concentrations	(b)	0.0
26b. Level II Concentrations	(b)	0.0
26c. Potential Contamination	(b)	0.0
26d. Sensitive Environments (lines 26a + 26b + 26c)	(b)	0.0
27. Targets (value from line 26d)	(b)	0.0

**Environmental Threat Score:**

28. Environmental Threat Score [(lines 22x25x27)/82,500 subject to a max of 60]	60	0.0
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**Surface Water Overland/Flood Migration Component Score for a Watershed**

29. Watershed Score <sup>c</sup> (lines 13+21+28, subject to a max of 100)	100	0.00
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**Surface Water Overland/Flood Migration Component Score**

30. Component Score ( $S_{sw}$ ) <sup>c</sup> (highest score from line 29 for all watersheds evaluated)	100	0.00
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<sup>a</sup> Maximum value applies to waste characteristics category

<sup>b</sup> Maximum value not applicable

<sup>c</sup> Do not round to nearest integer

**TABLE 4-25 --GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET**

Factor categories and factors	Maximum Value	Value Assigned
Watershed Evaluated: Surface Water		
<b>Drinking Water Threat</b>		
<b>Likelihood of Release to an Aquifer:</b>		
1. Observed Release	550	0.0
2. Potential to Release:		
2a. Containment	10	3.0
2b. Net Precipitation	10	1.0
2c. Depth to Aquifer	5	5.0
2d. Travel Time	35	1.0
2e. Potential to Release [(lines 2a(2b + 2c + 2d)]	500	21.0
3. Likelihood of Release (higher of lines 1 and 2e)	550	21.0
<b>Waste Characteristics:</b>		
4. Toxicity/Mobility	(a)	100.0
5. Hazardous Waste Quantity	(a)	10.0
6. Waste Characteristics	100	6.0
<b>Targets:</b>		
7. Nearest Well	(b)	0.0
8. Population:		
8a. Level I Concentrations	(b)	0.0
8b. Level II Concentrations	(b)	0.0
8c. Potential Contamination	(b)	0.0
8d. Population (lines 8a + 8b + 8c)	(b)	0.0
9. Resources	5	0.0
10. Targets (lines 7 + 8d + 9)	(b)	0.0
<b>Drinking Water Threat Score:</b>		
11. Drinking Water Threat Score [(lines 3 x 6 x 10)/82,500, subject to max of 100]	100	0.0
<b>Human Food Chain Threat</b>		
<b>Likelihood of Release:</b>		
12. Likelihood of Release (same value as line 3)	550	21.0
<b>Waste Characteristics:</b>		
13. Toxicity/Mobility/Persistence/Bioaccumulation	(a)	0.0
14. Hazardous Waste Quantity	(a)	10.0
15. Waste Characteristics	1000	0.0
<b>Targets:</b>		
16. Food Chain Individual	50	0.0
17. Population		
17a. Level I Concentration	(b)	0.0
17b. Level II Concentration	(b)	0.0
17c. Potential Human Food Chain Contamination	(b)	0.0
17d. Population (lines 17a + 17b + 17c)	(b)	0.0
18. Targets (lines 16 + 17d)	(b)	0.0
<b>Human Food Chain Threat Score:</b>		
19. Human Food Chain Threat Score [(lines 12x15x18)/82,500,subject to max of 100]	100	0.0
<b>Environmental Threat</b>		
<b>Likelihood of Release:</b>		
20. Likelihood of Release (same value as line 3)	550	21.0
<b>Waste Characteristics:</b>		
21. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	0.0
22. Hazardous Waste Quantity	(a)	10.0
23. Waste Characteristics	1000	0.0
<b>Targets:</b>		
24. Sensitive Environments		
24a. Level I Concentrations	(b)	0.0
24b. Level II Concentrations	(b)	0.0

24c. Potential Contamination	(b)	0.0	
24d. Sensitive Environments (lines 24a + 24b + 24c)	(b)	0.0	
25. Targets (value from line 24d)	(b)		0.0
<b>Environmental Threat Score:</b>			
26. Environmental Threat Score [(lines 20x23x25)/82,500 subject to a max of 60]	60		0.0
<b>Ground Water to Surface Water Migration Component Score for a Watershed</b>			
27. Watershed Score <sup>c</sup> (lines 11 + 19 + 28, subject to a max of 100)	100		0.0
28. Component Score (S <sub>gs</sub> ) <sup>c</sup> (highest score from line 27 for all watersheds evaluated, subject to a max of 100)	100		0.0

<sup>a</sup> Maximum value applies to waste characteristics category

<sup>b</sup> Maximum value not applicable

<sup>c</sup> Do not round to nearest integer

TABLE 5-1 --SOIL EXPOSURE PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
<b>Likelihood of Exposure:</b>		
1. Likelihood of Exposure	550	550.0
<b>Waste Characteristics:</b>		
2. Toxicity	(a)	10000.0
3. Hazardous Waste Quantity	(a)	10.0
4. Waste Characteristics	100	18.0
<b>Targets:</b>		
5. Resident Individual	50	50.0
6. Resident Population:		
6a. Level I Concentrations	(b)	40.0
6b. Level II Concentrations	(b)	0.0
6c. Population (lines 6a + 6b)	(b)	40.0
7. Workers	15	5.0
8. Resources	5	
9. Terrestrial Sensitive Environments	(c)	
10. Targets (lines 5 + 6c + 7 + 8 + 9)	(b)	95.0
<b>Resident Population Threat Score</b>		
11. Resident Population Threat Score (lines 1 x 4 x 10)	(b)	940500.0
<b>Nearby Population Threat</b>		
<b>Likelihood of Exposure:</b>		
12. Attractiveness/Accessibility	100	10.0
13. Area of Contamination	100	20.0
14. Likelihood of Exposure	500	5.0
<b>Waste Characteristics:</b>		
15. Toxicity	(a)	10000.0
16. Hazardous Waste Quantity	(a)	10.0
17. Waste Characteristics	100	18.0
<b>Targets:</b>		
18. Nearby Individual	1	0.0
19. Population Within 1 Mile	(b)	18.0
20. Targets (lines 18 + 19)	(b)	18.0
<b>Nearby Population Threat Score</b>		
21. Nearby Population Threat (lines 14 x 17 x 20)	(b)	1620.0
<b>Soil Exposure Pathway Score:</b>		
22. Pathway Score <sup>d</sup> (S <sub>s</sub> ), [(lines (11+21)/82,500, subject to max of 100]	100	11.42

<sup>a</sup> Maximum value applies to waste characteristics category

<sup>b</sup> Maximum value not applicable

<sup>c</sup> No specific maximum value applies to factor. However, pathway score based solely on terrestrial sensitive environments is limited to a maximum of 60

<sup>d</sup> Do not round to nearest integer

**TABLE 6-1 --AIR MIGRATION PATHWAY SCORESHEET**

Factor categories and factors	Maximum Value	Value Assigned
<b>Likelihood of Release:</b>		
1. Observed Release	550	
2. Potential to Release:		
2a. Gas Potential to Release	500	
2b. Particulate Potential to Release	500	
2c. Potential to Release (higher of lines 2a and 2b)	500	
3. Likelihood of Release (higher of lines 1 and 2c)	550	
<b>Waste Characteristics:</b>		
4. Toxicity/Mobility	(a)	
5. Hazardous Waste Quantity	(a)	
6. Waste Characteristics	100	
<b>Targets:</b>		
7. Nearest Individual	50	
8. Population:		
8a. Level I Concentrations	(b)	
8b. Level II Concentrations	(b)	
8c. Potential Contamination	(c)	
8d. Population (lines 8a + 8b + 8c)	(b)	
9. Resources	5	
10. Sensitive Environments:		
10a. Actual Contamination	(c)	
10b. Potential Contamination	(c)	
10c. Sensitive Environments (lines 10a + 10b)	(c)	
11. Targets (lines 7 + 8d + 9 + 10c)	(b)	
<b>Air Migration Pathway Score:</b>		
12. Pathway Score ( $S_a$ ) $[(\text{lines } 3 \times 6 \times 11)/82,500]^d$	100	

<sup>a</sup> Maximum value applies to waste characteristics category

<sup>b</sup> Maximum value not applicable

<sup>c</sup> No specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a maximum of 60.

<sup>d</sup> Do not round to nearest integer

## **SITE SUMMARY AND RECOMMENDATION**

The Superior Metals Reclaiming Company was a one acre facility located on the Southwest corner of the intersection of Chicago Avenue and Pennsylvania Railroad, in Lansing, Cook County, Illinois. The company was in operation from 1946 to 1963 dealing with the smelting of various metals, including lead. Adjacent to the site is an old clay pit associated with the Illinois Brick Company. Currently, the former Superior Metals Reclaiming Company facility is completely fenced and home to an active foundry and precision machining business.

Illinois EPA Office of Site Evaluation conducted X-Ray Fluorescence analysis of soils on-site and off-site on August 8, 2012 and October 15, 2012, respectively. No evidence of waste from historical smelting activities was identified during site visits. On-site, eight metals were found at concentrations three times background. Lead, zinc, and copper had concentrations three times background at every on-site sample location. Lead concentrations at one on-site location are near USEPA's Removal Action Limit (RAL) threshold. However, access to the site is thoroughly restricted on all sides with five to six foot-tall barriers made up mostly of metal fencing, concrete, and wood. Because the facility is still active and access is restricted, elevated lead concentrations on-site pose a minimal threat to human health or the environment. However, should the business close down or if the perimeter fencing becomes compromised, the situation should be re-evaluated.

Off-site analysis found contamination of lead, zinc, cadmium, and copper at three times background. Zinc concentrations were three times background in six of the nine total

locations while lead and cadmium was only three times background once, in separate locations. With the exception of cadmium (which occurred in the right of way adjacent to an industrial property), metal concentrations found off-site meet Illinois EPA's Corrective Action Objectives for residential exposure scenarios. Migration off-site by surface water run-off, groundwater infiltration and migration, or air movement is not a concern.

The HRS score for the site using Quickscore is 5.73, which is well below the 28.50 score required for listing on the NPL. The soil exposure pathway is the primary pathway of concern at the site. Other pathways are not a significant concern. **Non - Responsive**